

What is claimed is:

1. A method of generating musical tones, comprising:

5 a decomposing step of decomposing musical piece data into phrases, said musical piece data being formed of pieces of performance data arranged in order of performance;

10 an analyzing step of analyzing said pieces of performance data of said musical piece data for each of said phrases obtained by said decomposing step;

a preparing step of preparing tone color control data for said each of said phrases according to results of said analyzing;

15 a reproducing step of reproducing said pieces of performance data of said musical piece data by sequentially reading said pieces of performance data at timing at which said pieces of performance data are to be performed; and

20 a controlling step of controlling tone color characteristics of musical tones to be generated based on selected ones of said pieces of performance data which are reproduced by said reproducing step, according to said tone color control data prepared for ones of said phrases to which said selected ones of said pieces of performance data belong, respectively.

2. A method of generating musical tones, comprising:

5 a first storing step of storing a plurality of pieces of tone color control data corresponding to respective performance methods in tone color control data-storing means;

a second storing step of storing performance data in performance data-storing means;

a data-generating step of generating

performance method data that designates which of said performance methods said performance data corresponds to;

5 a selecting step of selecting one of said pieces of tone color control data which corresponds to said performance method data generated by said data-generating step;

10 a musical tone-generating step of generating a musical tone based on said performance data; and
a controlling step of controlling tone color characteristics of said musical tone generated by said musical tone-generating step, according to said selected one of said pieces of tone color control data.

3. A method according to claim 2, including:
a tone color-selecting step of selecting a kind of tone color of a musical tone to be generated; and
5 a third storing step of storing pieces of said performance method data peculiar to said selected kind of tone color, in performance method data-storing means;

10 said data-generating step selecting and generating a desired piece of performance method data from said pieces of said performance method data peculiar to said kind of tone color selected by said tone color-selecting step, according to said performance data.

4. A method according to claim 2, wherein said pieces of tone color control data each include a plurality of waveform data corresponding respectively to said performance methods.

5. A method according to claim 2, wherein said pieces of tone color control data each include a plurality of sounding control programs corresponding respectively to said performance methods.

6. A method of generating musical tones,

comprising:

5 a first storing step of storing a plurality of kinds of waveforms for generating glissando waveforms in musical tone waveform-storing means, each of said kinds of waveforms itself having a tone color variation characteristic and a pitch variation characteristic peculiar to a glissando performance method, and comprising an attack portion to be read out first only once and a loop portion to be repeatedly read out after said attack portion is read out;

10 a waveform-designating step of sequentially designating a sequence of waveforms necessary for generating a desired glissando waveform from said plurality of kinds of waveforms stored in said musical tone waveform-storing means;

15 a timing-designating step of designating sounding timing for starting reading of each waveform of said sequence of waveforms designated by said timing-designating step;

20 a first reading step of starting reading of said attack portion of said each waveform of said designated sequence of waveforms, at said designated sounding timing while terminating reading of an immediately preceding waveform being sounded;

25 a second reading step of repeatedly reading said loop portion following said attack portion upon completion of said reading of said attack portion; and

30 a generating step of repeatedly executing said first and second reading steps to sequentially read out said designated sequence of waveforms and generating musical tones based on said designated sequence of waveforms.

7. A method of generating musical tones, comprising:

a storing step of storing a plurality of kinds of waveforms of musical tones which change in pitch between two pitches, in musical tone waveform-storing means;

5 a reading step of selectively reading out waveforms from said plurality of kinds of waveforms stored in said musical tone waveform-storing means;

10 a selecting step of selecting at random one waveform from said plurality of kinds of waveforms of musical tones stored in said musical tone waveform-storing means whenever said selective reading of another waveform of said plurality of kinds of waveforms selected immediately before said selection of said one waveform is terminated;

15 a generating step of generating a musical tone by reading out said waveform selected by said selecting step.

8. A method of generating musical tones, comprising:

5 a first storing step of storing a plurality of kinds of waveforms of musical tones each having a first characteristic as a first musical tone waveform group in first waveform-storing means;

10 a second storing step of storing a plurality of kinds of waveforms of musical tones each having a second characteristic as a second musical tone waveform group in second waveform-storing means;

a selecting step of selecting a waveform alternately from said first musical tone waveform group and said second musical tone waveform group; and

15 a generating step of generating a musical tone by reading out said waveform selected by said selecting step.

9. A storage medium that stores a program that can be carried out by a computer, comprising:

a decomposing module that decomposes musical piece data into phrases, said musical piece data being formed of pieces of performance data arranged in order of performance;

5 an analyzing module that analyzes said pieces of performance data of said musical piece data for each of said phrases obtained by execution of said decomposing module;

10 a preparing module that prepares tone color control data for said each of said phrases according to results of said analyzing;

15 a reproducing module that reproduces said pieces of performance data of said musical piece data by sequentially reading said pieces of performance data at timing at which said pieces of performance data are to be performed, and

20 a controlling module that controls tone color characteristics of musical tones to be generated based on selected ones of said pieces of performance data which are reproduced by execution of said reproducing module, according to said tone color control data prepared for ones of said phrases to which said selected ones of said pieces of performance data belong, respectively.

10. A storage medium that stores a program that can be carried out by a computer, comprising:

5 a first storing module that stores a plurality of pieces of tone color control data corresponding to respective performance methods in tone color control data-storing means;

a second storing module that stores performance data in performance data-storing means;

10 a data-generating module that generates performance method data that designates which of said performance methods said performance data corresponds

to;

a selecting module that selects one of said pieces of tone color control data which corresponds to said performance method data generated by execution of said data-generating module;

a musical tone-generating module that generates a musical tone based on said performance data; and

a controlling module that controls tone color characteristics of said musical tone generated by execution of said musical tone-generating module, according to said selected one of said pieces of tone color control data.

11. A storage medium that stores a program that can be carried out by a computer, comprising:

a first storing module that stores a plurality of kinds of waveforms for generating glissando waveforms in musical tone waveform-storing means, each of said kinds of waveforms itself having a tone color variation characteristic and a pitch variation characteristic peculiar to a glissando performance method, and comprising an attack portion to be read out first only once and a loop portion to be repeatedly read out after said attack portion is read out;

a waveform-designating module that sequentially designates a sequence of waveforms necessary for generating a desired glissando waveform from said plurality of kinds of waveforms stored in said musical tone waveform-storing means;

a timing-designating module that designates sounding timing for starting reading of each waveform of said sequence of waveforms designated by execution of said timing-designating module;

a first reading module that starts reading of said attack portion of said each waveform of said

designated sequence of waveforms, at said designated sounding timing while terminating reading of an immediately preceding waveform being sounded;

5 a second reading module that repeatedly reads said loop portion following said attack portion upon completion of said reading of said attack portion; and

10 a generating module that repeatedly executes said first and second reading module to sequentially read out said designated sequence of waveforms and generating musical tones based on said designated sequence of waveforms.

12. A storage medium that stores a program that can be carried out by a computer, comprising:

5 a storing module that stores a plurality of kinds of waveforms of musical tones which change in pitch between two pitches, in musical tone waveform-storing means;

10 a reading module that selectively reads out waveforms from said plurality of kinds of waveforms stored in said musical tone waveform-storing means;

15 a selecting module that selects at random one waveform from said plurality of kinds of waveforms of musical tones stored in said musical tone waveform-storing means whenever said selective reading of another waveform of said plurality of kinds of waveforms selected immediately before said selection of said one waveform is terminated; and

a generating module that generates a musical tone by reading out said waveform selected by execution of said selecting module.

13. A storage medium that stores a program that can be carried out by a computer, comprising:

5 a first storing module that stores a plurality of kinds of waveforms of musical tones each having a first characteristic as a first musical tone waveform

group in first waveform-storing means;

a second storing module that stores a plurality of kinds of waveforms of musical tones each having a second characteristic as a second musical tone waveform group in second waveform-storing means;

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a selecting module that selects a waveform alternately from said first musical tone waveform group and said second musical tone waveform group; and

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a generating module that generates a musical tone by reading out said waveform selected by execution of said selecting module.

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